

(12) United States Patent

Sung et al.

(54) POWER-SHARING CHARGING SYSTEM, CHARGING DEVICE, AND METHOD FOR CONTROLLING THE SAME

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(57)**ABSTRACT**

The present disclosure provides a charging system including: at least two charging devices including at least two output units configured to supply connected automobiles with charging power, a first bus electrically connected to the output units and configured to transfer charging power to the output units, and a power processing unit configured to process power, which is supplied from a power source, using a first capacity and supply the first bus with the processed power; and a second bus configured to connect a first bus of a first charging device and a first bus of a second charging device, wherein, when a total capacity of charging power supplied to automobiles connected to the first charging device exceeds the first capacity, a part or all of lacking capacity is supplied via the second bus.

17 Claims, 26 Drawing Sheets

